What is claimed is:

1.   A method of processing first, second, and third
signals for use in a system having first, second, third
and fourth signal lines, comprising:
        generating a fourth signal;
        generating, using a pseudo-random number generator,
pseudo-random output values; and
        changing, as a function of at least one of said
pseudo-random output values, which ones of the first,
second, third and fourth signal lines are used to
transmit the first, second, third, and fourth signals.

2.   The method of claim 1, wherein generating a fourth
signal includes:
            processing at least one of the first, second or
third signals to generate the fourth signal from said at
least one of the first, second, or third signals.

3.   The method of claim 1, wherein generating a fourth
signal includes performing the act of:
            switching between at least two of said first
and second signals to generate said fourth signal.

4.   The method of claim 1, wherein generating a fourth
signal includes:
            performing a high pass filtering operation on
one of said first, second and third signals to produce a
filtered signal; and
            combining the filtered signal with a modulated
pedestal signal to generate said fourth signal.

5.   The method of claim 1, wherein the changing step is performed by a matrix multiplication operation performed on the first, second, third and fourth signals utilizing matrix coefficients generated from a plurality of the pseudo-random output values.

6.   The method of claim 5,
wherein the first, second, and third signal lines couple a source device to a destination device, said pseudo-random number generator contained within the source device, the method further comprising:
operating the source device to communicate with the destination device so as to establish a session key; and
operating the pseudo-random number generator to generate said pseudo-random output values as a function of the established session key.

7.   The method of claim 6, wherein the first, second and third signals are red, green and blue video signals, respectively, the method further comprising the steps of:
encrypting horizontal synchronization information into at least one of said red, green and blue video signals prior to changing which ones of the first, second, third and fourth signal lines are used to transmit said first, second and third signals.

8.   The method of claim 7, further comprising:
transmitting a horizontal synchronization signal over said fourth line prior to using the fourth

4   line to transmit one of said first, second and third

5   video signals.

1   9.   A method of processing first, second, and third

2   video signals, the method comprising:

3   generating a fourth video signal,

4   transmitting the first, second, third, and

5   fourth video signals over first, second, third and fourth

6   lines, the transmitting including:

7   periodically swapping the lines used to

8   transmit the first, second, third and fourth video

9   signals.

1   10.   The method of 9, further comprising:

2   modifying at least one of said first, second

3   and third signals prior to transmitting them.

1   11.   The method of claim 10, wherein modifying at least

2   one of said first, second and third signals includes:

3   modulating horizontal synchronization

4   information on each of said first, second, and third

5   video signals.

1   12.   The method of claim 11, wherein periodically

2   swapping the lines used to transmit the first, second,

3   third and fourth video signals includes the act of:

4   performing a matrix multiplication operation on

5   the first, second, third and fourth video signals to

6   determine the line on which each of the video signals are

7   transmitted.

1   13.   The method of claim 12, further comprising;

2   operating a pseudo random number generator to

3   generate a set of values; and

4   wherein said matrix multiplication operation is

5   performed as a function of said set of generated values.

1   14.   A machine readable medium, comprising computer

2   instructions for controlling a computer system to perform

3   the steps recited in claim 1.

1   15.   A method of transmitting signals, the method

2   comprising:

3   during a first period of time transmitting red,

4   green, and blue video signals on first, second, and third

5   lines, respectively;

6   during the first period of time transmitting

7   horizontal synchronization information on a fourth line;

8   during the first period of time transmitting

9   vertical synchronization signals on a fifth line;

10   during a second period of time, combining the

11   horizontal synchronization information with at least one

12   of the vertical synchronization signal, red video signal,

13   green video signal and blue video signal; and

14   during the second period of time, transmitting

15   a fourth video signal on said fourth line.

1   16.   The method of claim 15, further comprising:

2   generating the fourth video signal from at

3   least one of the red, green and blue video signals.

1   17.   The method of claim 15, wherein during the second
2   period of time the method further comprises:
3   transmitting each of the red, green and blue
4   video signals and the fourth video signal on one of the
5   first, second, third and fourth lines; and
6   periodically swapping the lines used to
7   transmit the red, green, and blue video signals and
8   fourth video signal.

1   18.   The method of claim 15, wherein combining the
2   horizontal synchronization information with at least one
3   the vertical synchronization signal, red video signal,
4   green video signal, and vertical synchronization signal
5   includes:
6   modulating the horizontal synchronization
7   information on each of the red, green and blue video
8   signals.

1   19.   The method of claim 15, wherein bi-phase modulation
2   is used to modulate the horizontal synchronization
3   information on the red, green and blue video signals.

1   20.   The method of claim 15, wherein combining the
2   horizontal synchronization information with at least one
3   of the vertical synchronization signal, red video signal,
4   green video signal and blue video signal includes:
5   combining the horizontal synchronization
6   information with the vertical synchronization signal to
7   form a composite synchronization signal including
8   horizontal and vertical synchronization information.

21. A method of operating a display device, comprising:

receiving first, second, third, and fourth video signals;

performing a decryption operation on the received video signals, as a function of at least one value generated by a pseudo random number generator, to generate red, green and blue video signals; and

supplying the red, green and blue video signals to a display.

22. The method of claim 21, further comprising:

performing a demodulation operation on at least one of the first, second, third and fourth video signals to recover horizontal timing information.

23. The method of claim 22, wherein performing a demodulation operation includes:

performing a bi-phase decoding operation to recover bi-phased encoded horizontal synchronization information.

24. The method of claim 22, further comprising:

exchanging a session key with a display adapter; and

using the session key to control the pseudo random number generator.

25. The method of claim 21, wherein performing a decryption operation includes:

performing a matrix multiplication operation, on the received first, second, third, and fourth video

5 signals, as a function of at least one value generated by
6 the pseudo random number generator, to produce said red,
7 green and blue video signals.

1 26. A method of operating a display device, the display
2 device including first through fifth inputs, the method
3 comprising:
4   during a first period of time,
5   receiving red, green and blue video signals on
6 the first, second and third inputs;
7   receiving a horizontal synchronization signal
8 on a fourth input;
9   receiving a vertical synchronization signal on
10 a fifth input; and
11   during a second period of time,
12   receiving first, second, and third encrypted
13 video signals on the first, second, and third inputs;
14   · receiving a fourth encrypted video signal on a
15 first one of the fourth and fifth lines; and
16   receiving a vertical synchronization signal on
17 a second one of the fourth and fifth lines.

1 27. The method of claim 26, further comprising, during
2 the second time period of operation:
3   demodulating a horizontal synchronization
4 signal included in at least one of the first, second,
5 third and fourth encrypted video signals.

1 28. The method of claim 27, further comprising, during
2 the second time period of operation:

3   performing a decryption operation on the first,

4   second, third and fourth encrypted video signals to

5   generate red, green and blue video signals; and

6   generating an image on a display from said

7   generated red, green and blue video signals.

1   29. A video adapter comprising:

2   a pseudo random number generator;

3   a video signal generator for generating a

4   fourth video signal;

5   means for performing, as a function of a value

6   generated by said pseudo random number generator, a video

7   signal encryption operation on first, second, and third

8   video signals and said fourth video signal to produce

9   first, second, third, and fourth encrypted video signals.

1   30. The video adapter of claim 29, wherein the video

2   signal generator includes means for generating said

3   fourth video signal from at least one of said first,

4   second and third video signals.

1   31. The video adapter of claim 30, wherein the means for

2   performing a video signal encryption operation includes a

3   matrix multiplier.

1   32. The video adapter of claim 29, further comprising:

2   means for modulating horizontal synchronization

3   information on one of the first, second, third, and

4   fourth video signals.

1   33. The video adapter of claim 29,

2   wherein the first, second, third and fourth

3 video signal are analog video signals; and

4   wherein the first, second, third and fourth

5 encrypted video signals are analog signals.

1 34. A display device, comprising:

2   a pseudo random number generator;

3   a video decryption circuit for performing, in

4 parallel, a video decryption operation on first, second,

5 third and fourth encrypted video signals as a function of

6 at least one value output by said pseudo random number

7 generator to produce analog red, green and blue video

8 signals.

1 35. The display device of claim 34, wherein the video

2 decryption circuit includes means for performing a matrix

3 multiplication operation on the first, second, third and

4 fourth encrypted video signals.

1 36. The display device of claim 35, further comprising:

2   means for demodulating horizontal

3 synchronization information included in at least one of

4 the first, second, third and fourth encrypted video

5 signals.

1 37. The display device of claim 36, further comprising:

2   means for supplying a horizontal signal

3 generated by said means for demodulating to a display

4 during an encrypted mode of display operation; and

5   means for supplying a horizontal signal
6 received during an unencrypted mode of operation to the
7 display.
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